AdLib™
Personal Computer Music System

Music Synthesizer Card™

Juke Box™ Playback Program

User Guide

AdLib™
Personal Computer Music System

Ad Lib Music Synthesizer Card and Juke Box

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Introduction

This manual describes the installation and use of the Music Synthesizer Card of the Ad Lib Personal Computer Music System. This easy-to-install, half-size card transforms your computer into a powerful synthesizer which will faithfully reproduce the sound of a single instrument or an entire orchestra.

The capabilities of the Synthesizer Card are well demonstrated with the Juke Box playback program. This program, featuring a clever graphic interface, enables you to hear compositions created with Visual Composer –another Ad Lib product, intended for anyone interested in creating their own music.

The Music Synthesizer Card also provides for a growing series of interesting programs such as the Music Championship educational series, Instrument Maker and, of course, Visual Composer. The Synthesizer Card may also be used to enhance the sound effects in computer games.

For education, creative self-expression, or just plain fun, the Ad Lib Personal Computer Music System affords virtually limitless possibilities for you and your personal computer.

Getting Started

Required Equipment

To run the Juke Box and any other program of the Ad Lib Personal Computer Music System, you need the following:

1. The Ad Lib Music Synthesizer Card.
2. A computer:
   IBM-PC, PC XT, PC AT or a compatible equipped with at least a 360K disk drive and 256K of memory. (Additional memory enables longer or more complex songs.)
3. A graphic display card:
   IBM Color Graphics Adapter (CGA) or IBM Enhanced Graphics Adapter (EGA) or compatibles.
4. An operating system:
   PC/MS-DOS 2.00 or all latest versions.
5. Headphones, speakers or home stereo.

NOTE: You can also use the Ad Lib Personal Computer Music System with a mouse (see Appendix D for details).

Contents of the Diskette

The diskette contains various files related to the Juke Box program and to a test program.

- TEST.BAT
  This program enables you to check that the card is working properly.
- JUKEBOX.BAT
  This program plays pieces of music that demonstrate the sound synthesis potential of the card.
- SOUND.COM
  This program contains the sound driver used by the Juke Box program.
- *.ROL
  The ".ROL" files contain the pieces of music used in the Juke Box program.
- *.INS
  The ".INS" files contain the sounds used by the Juke Box program.
- JUKE1.EXE
  This file contains the main part of the Juke Box program. Never directly load this file. Instead, use the JUKEBOX.BAT file which contains the normal loading sequence.

- JUKE1.RSR
  This file contains the resources needed to run the Jukebox.
- JUKEBOX.DAT
  This file contains the Juke Box song index.
- README.TXT
  This file contains information on the latest program updates, if there are any.

Before continuing, we suggest that you take a look at the "README.TXT" file. To read the file, proceed as follows:

1. Insert the diskette into drive A.
2. Type the following line:
   A>**TYPE README.TXT**

In this manual, all expressions that have to be typed on the DOS are indicated as follows:

A>**TEST**

The bold type indicates what you have to type while the standard type indicates the computer's prompt.

Description of the Card

The Ad Lib Music Synthesizer Card is packaged in special material designed to protect it against static electricity. We recommend that you keep it in this package until it is installed in your computer.

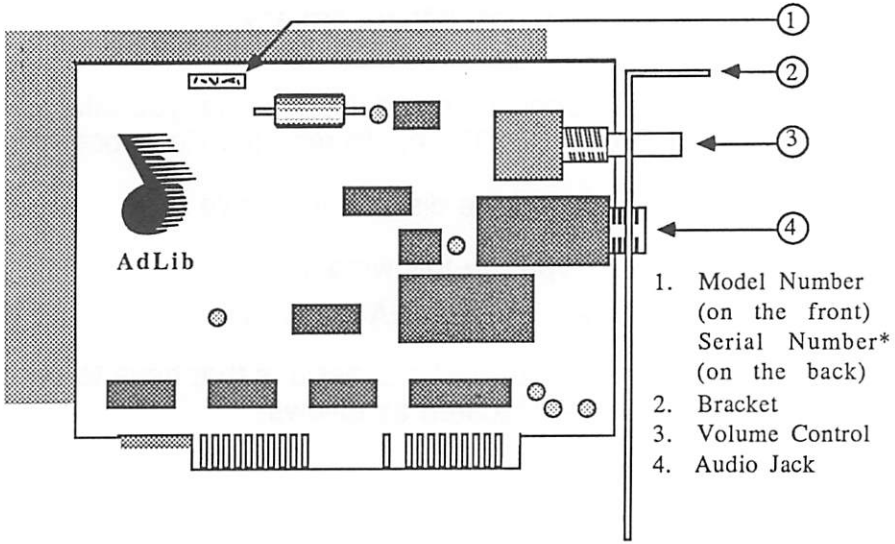


Figure 1: Ad Lib Music Synthesizer Card

* We recommend that before you install the card, you take note of the serial number. It could be useful if ever you have to call our customer service.

Making a Copy of the Program Diskette

This diskette is not copy-protected. We therefore recommend that you make a back-up copy before you start.

By following the instructions given below, you will be able to prepare a copy of the program diskette.

To prepare a diskette

1. Insert a DOS diskette into drive A. This diskette must contain the FORMAT program.
2. Load the FORMAT program:

   A>**FORMAT A:**

The program will ask you to remove the DOS diskette and to insert a blank diskette into drive A.

Your DOS manual contains more details on the FORMAT command.

To copy the program

1. Insert the new diskette into drive A.
2. Insert the Ad Lib diskette into drive B.
3. Copy the contents of the diskette from drive B to drive A.

   A>**COPY B:*.*/V**

The diskette in drive A now contains a copy of the program.

NOTE: These instructions apply to a double disk drive system. If you own a single disk drive system, the COPY program will ask you to make the necessary diskette changes.

Installing the Card

We suggest that you read this section thoroughly before you begin. In this way, you will be able to familiarize yourself with the general procedure.

The following instructions apply to the installation of the Ad Lib Music Synthesizer Card in an IBM PC or compatible computer. The casing of your computer might differ slightly from the diagram seen on the following page. We recommend that you read the owner's manual supplied with your computer for specific instructions.

Before you begin

1. Switch off the computer.
2. Disconnect the power cord.
3. Disconnect all peripheral devices and cables connected to the computer.
4. Set the computer on a flat, clear surface.

Removing the computer cover

1. Locate the mounting screws at the back of your computer (see Figure 2).

2. Remove the screws.
3. Remove the cover (slide it forward and then up).

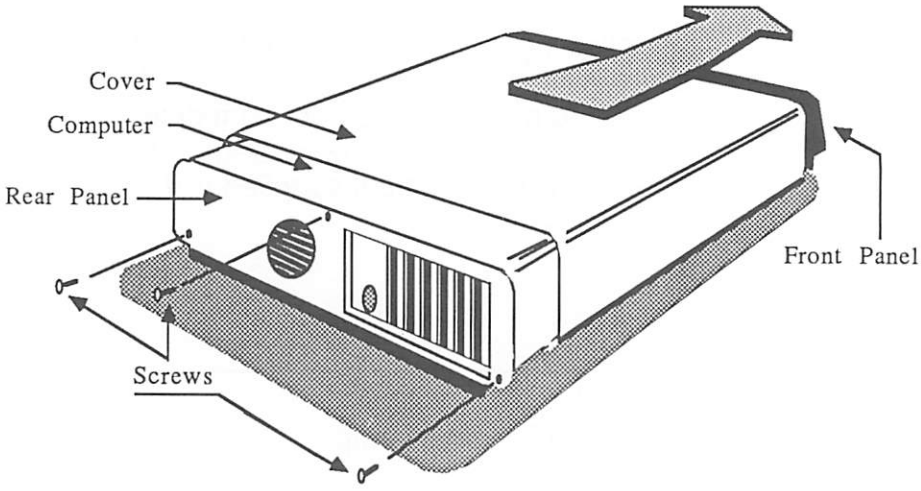


Figure 2: Removing the computer cover

Removing the slot cover

1. Choose a slot as far as possible from the video adaptor card. Certain cards, such as video adaptors, produce high-frequency signals which can interfere with the sound quality of the Ad Lib Music Synthesizer Card.

2. Remove the screw that holds the slot cover in place (see Figure 3).
3. Lift the slot cover to remove it.

WARNING: If the screw falls into the computer, you **absolutely** must remove it before switching your system back on. If a metal object is left loose inside the casing of your computer, it might cause a short circuit that could damage your system.

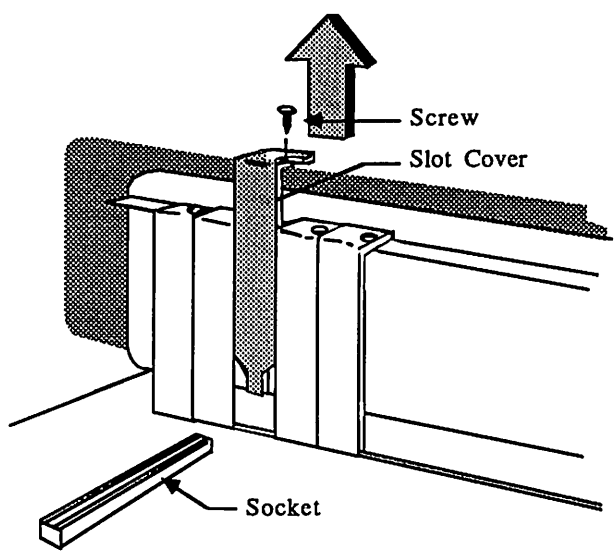


Figure 3: Removing the slot cover

Inserting the card

1. Place the card immediately above the slot without inserting it into the socket.
2. Make sure that the bracket is inserted in the groove previously occupied by the slot cover and that the volume control shaft protrudes from the casing.
3. Press the card down into the socket (see Figure 4).
4. Replace the screw.

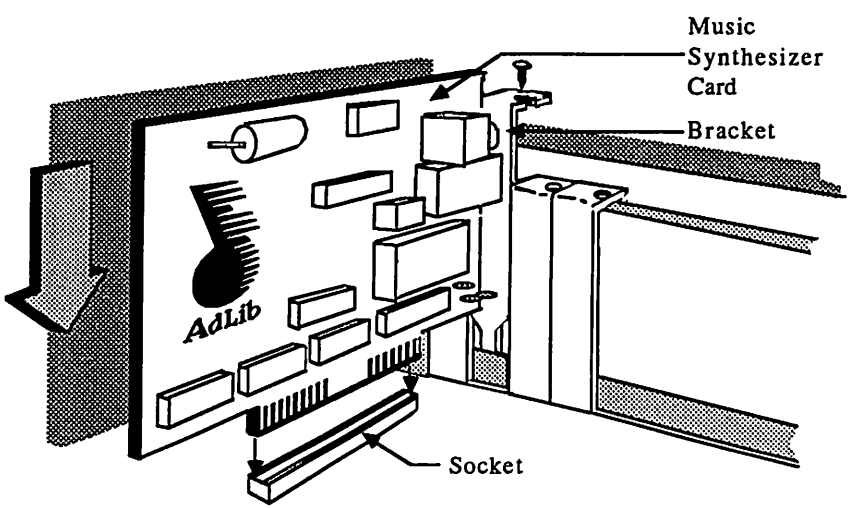


Figure 4: Installing the card

5. Put the cover back into place.

6. Reconnect the power cord and other cables.

The Ad Lib Music Synthesizer Card is now installed. You will now see how to connect headphones, speakers or stereo system, and how to test the card.

Connecting a headset, loudspeaker or stereo system

The card is provided with a 1/4" audio jack for a standard stereo headset and a 1/8" adaptor for an ultra-light headset. The card can also be connected to an external loudspeaker or a stereo system by means of an easily available stereo to mono adaptor (see Figure 5). For the loudspeaker, you can use either one of the two channels; for the stereo, use both channels or set the system to mono. The use of a monophonic jack instead of an adaptor will lower the sound level and reduce its quality.

To avoid distortion, the card should be connected to an auxiliary-type input. Before connecting it, turn the card volume control counter-clockwise to its minimum value. Set the volume control of your stereo system or loudspeaker at a position corresponding to a normal listening level. Connect the card and then adjust the card volume control to the desired level.

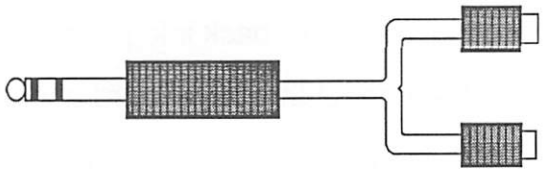


Figure 5: Stereo to mono adaptor

Testing the card

The TEST program, which is supplied on the program diskette, enables you to verify the Ad Lib Music Synthesizer Card.

Proceed as follows:

1. Connect headphones, speakers or stereo system into the audio jack.
   All headphones equipped with a 1/4" stereo plug can be connected directly to the card. Ultralight headphones equipped with a 1/8" plug can also be connected by using the provided 1/8" to 1/4" adapter.
2. Turn the volume control counter-clockwise to its minimum value.
3. Turn on your computer with a DOS System diskette.
4. Insert the Juke Box diskette into drive B.
5. Load the TEST program:
   B>**TEST**

The TEST program continually repeats a short song.

- Adjust the volume control of the Ad Lib Music Synthesizer Card until you can hear the test song playing.

When you hear the test song, you know that the card is working properly. To leave the TEST program, press the Esc key.

If there is no sound, consult Appendix A: "Trouble-Shooting".

Using the Juke Box

The Juke Box program is specially designed to demonstrate the capabilities of the Ad Lib Music Synthesizer Card. It enables you to play pre-programmed songs of a variety of styles, or the songs you create with Visual Composer.

To execute the program, insert the Ad Lib program diskette into drive B, set the current drive to B, and type:

B>**JUKEBOX**

NOTE: This program was designed to display quality graphics on either a black and white or a color monitor. If, however, you have a color monitor, you may enhance the graphic display by adding the following argument to the loading command:

B>**JUKEBOX /CO**

When the program is loaded, you will see the title page followed by the image seen in Figure 6.

Along the top, the menu contains a list of possible commands and their associated function keys.

Underneath that, the index contains a list of available songs and the symbols that correspond to the playback and scanning controls.

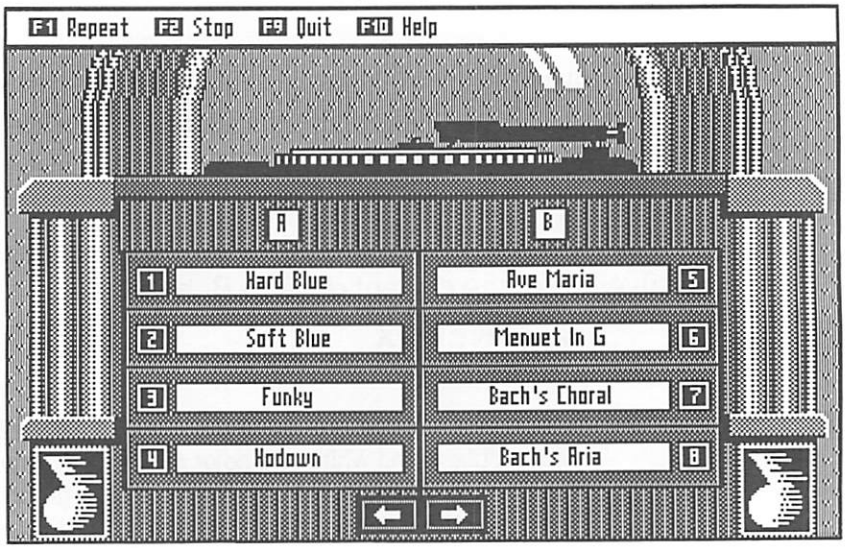


Figure 6: The Juke Box

Playing a song

To play a song, simply press the key corresponding to the number indicated beside the name of the desired song (1 key plays the first song; 8 key plays the eighth).

While the music is being loaded, a clock symbol appears on the screen, indicating that you must wait before issuing another command.

The [F1] key enables you to playback the last song.

The [F2] key enables you to interrupt a song while it is playing.

Scanning the song index

Use the [←] and [→] keys to flip the pages of the song index.

Keys [1] to [8] are always used to select the song you would like to hear.

Modifying the song index

The JUKEBOX.DAT file contains a list of the Juke Box songs. By modifying the contents of this file, you can add new songs, change their order, or change the titles displayed in the index.

Any program editor can be used to modify the JUKEBOX.DAT file.

Each line of the JUKEBOX.DAT file represents the title of a song that will appear in the index: the first word you type on the line is the DOS title of the desired file; the rest of the line contains the title that will be displayed in the song index.

Example: HBLUE Hard Blue
SBLUE Soft Blue

The files created by Visual Composer are necessarily of the .ROL type. But you don't have to include the .ROL part of the title in the JUKEBOX.DAT file lines.

Help

When you choose the command Help (F10), a window opens on the screen containing information on how to operate the Juke Box and how to modify its contents, as seen in Figure 7.

The arrows located at the bottom of this window indicate which keys are used to see the other pages of this document, if there are any. To close this window, press the Escape key.

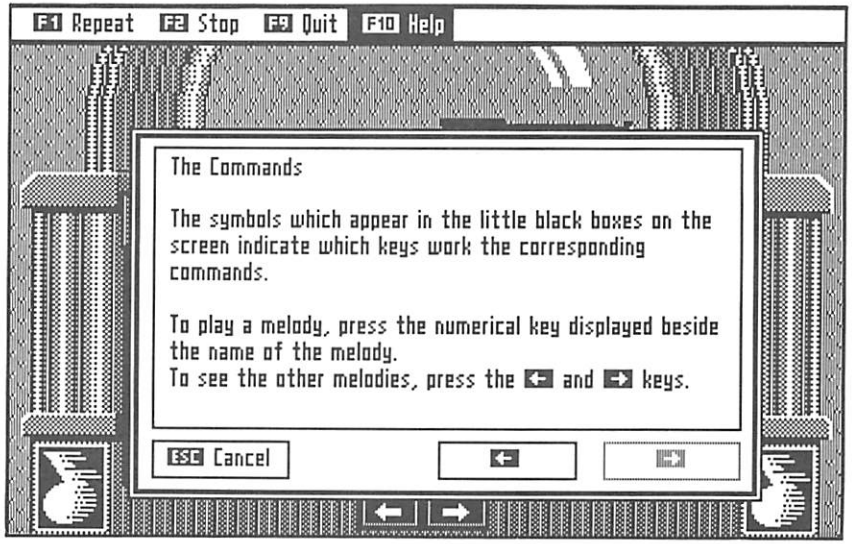

F1 Repeat
F2 Stop
F9 Quit
F10 Help
The Commands
The symbols which appear in the little black boxes on the screen indicate which keys work the corresponding commands.
To play a melody, press the numerical key displayed beside the name of the melody.
To see the other melodies, press the ← and → keys.
ESC Cancel

Figure 7: The on-line help

Quitting the program

The F9 key enables you to quit the program and to return to DOS.

Appendix A
Trouble-Shooting

In this section, you will find the solutions to problems you may encounter when installing and using the Ad Lib Music Synthesizer Card.

- **Problem:**

  The Ad Lib Music Synthesizer Card does not produce any sound.

  What's probably wrong:

  - There is no musical program running.
  - The volume is set too low.
  - The headphones, external loudspeaker or stereo system are incorrectly connected.
  - The card is improperly inserted into its socket.

  What to do:

  - Execute the TEST program.
  - Make sure that all connectors are securely inserted. Disconnect any external loudspeaker or stereo system and try the card with headphones.
  - Verify that the card is properly inserted into its socket.

- **Problem:**

  The sound produced is of poor quality.

  What's probably wrong:

  - The volume is set too high.
  - The headphones, external loudspeaker or stereo system are incorrectly connected.
  - Another card is causing interference.

  What to do:

  - Adjust the volume control to lower the sound level in order to prevent distortion.
  - The sound level produced by the Ad Lib Music Synthesizer Card is high enough to overload an external amplifier. Always use an auxiliary-type input and turn the volume down to a minimum.
  - You are using the wrong type of connecting plug. Only stereo-type plugs should be used.
  - Change the location of the card in your computer. Certain other cards, such as video adaptors, produce high-frequency signals that can interfere with the Ad Lib Music Synthesizer Card.

Each Ad Lib Music Synthesizer Card is systematically checked prior to shipping, in order to ensure that it is free from technical problems. However, if you encounter a problem that you are not able to solve after following the directions in this guide, do not hesitate to call our customer service.

You will need the following information on hand when you call:

- The serial number located on the back of your Ad lib Music Synthesizer Card.
- This manual.

Appendix B
The Sound Driver

It is the sound driver that enables the Juke Box to be used with the Ad Lib Music Synthesizer. When you request a piece, the program stores the data needed to perform this operation in a memory buffer. The size of this buffer determines the reaction time of the program: the bigger the buffer, the more information the program can store in advance, and the quicker it can respond to your commands.

However, the memory used for the buffer cannot be used for anything else –be it longer pieces or other programs. Therefore, adjust the size of the memory-buffer according to your needs.

Adjusting the Size of the Memory Buffer

The memory buffer has been preset for a computer with 256K memory. With a computer of 256K memory, a larger memory buffer could inhibit operations. If your computer has more memory, you may adjust the size of the memory buffer to suit your needs.

To change the size of the memory buffer, you must modify one of the commands in the JUKEBOX.BAT file by supplying a new argument to the sound driver's loading program.

1. Open the file JUKEBOX.BAT with a program editor.

2. Find the line containing the command SOUND.
   On this line you will find the letter "b" followed by a hexadecimal number. This parameter indicates the present size of the buffer.

   Example: sound b1000

Buffer Size	Program Argument
4K	b1000
6K	b1800
8K	b2000
10K	b2800
12K	b3000

3. Replace the present size by the desired size, using the table seen below as a guide.

4. Save the JUKEBOX.BAT file.
   To put the adjustment into effect, it is necessary to reset the computer, for it is when the program is loaded that the sound driver notes the configuration of the memory.

It is worthless to increase the dimensions of the memory buffer beyond 12K.

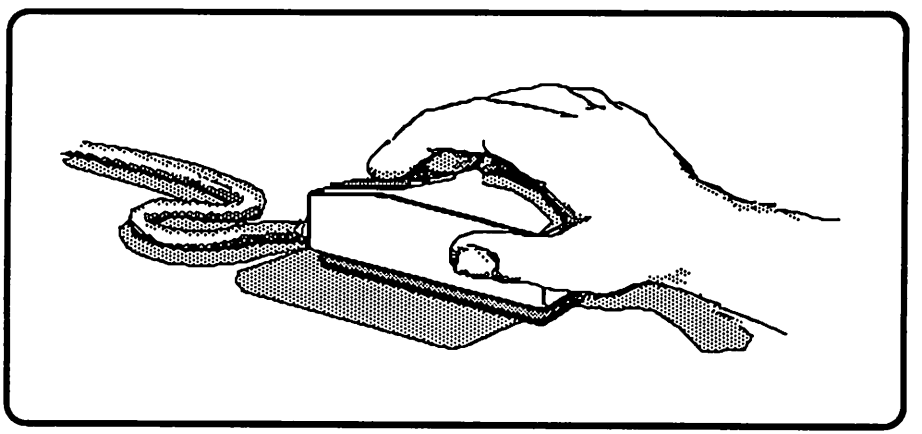
Appendix C
Error Messages

- **Cannot find resource file.**
  The program cannot function because the file JUKE1.RSR is not in the current directory.

- **Sound driver is not installed.**
  The program cannot function because the sound driver has not been loaded. Load the sound driver and try again. (This should not happen if you use the normal loading procedure.)

Appendix D
Using a Mouse

This appendix explains how to use the Juke Box with a mouse – which we take for granted you know how to operate.



Loading the Juke Box with a Mouse Driver

The Juke Box automatically detects and utilizes a mouse driver if one is loaded. Load your mouse driver according to the manual that comes with the mouse. Next, load the Juke Box in the usual way. The program is compatible with mouses made by Microsoft (and all related drivers) and Mouse Systems PC Mouse.

NOTE: You may integrate the loading of the mouse driver with the AUTOEXEC.BAT file.

When the mouse driver is already installed but you don't wish to use it, load the program with the option "/-m". This option prevents the automatic utilization of the mouse driver. At the DOS prompt, type:

A>**JUKEBOX /-M**

Program Particularities when Using a Mouse

When Juke Box is loaded with a mouse, simply click on the button or command corresponding to the desired action (the commands at the top of the screen, the arrows or the index commands), in order that it be effectuated.

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Personal Computer Music System

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